

CLAIMS

What is claimed is:

1. A method of verifying a defect management area (DMA) information analyzing function of a recording and reproducing apparatus which records information on or reproduces information from a disc with DMA information, the method comprising:
operating the recording and reproducing apparatus in a read or write mode, using a test disc with test reference information; and
checking whether the recording and reproducing apparatus operates in the read or write mode to verify the DMA information analyzing function of the recording and reproducing apparatus.
2. The method of claim 1, wherein the test reference information is a mirror file.
3. The method of claim 1, wherein the test reference information is a DMA mirror file.
4. The method of claim 3, wherein the test reference information is a DMA mirror file in which a start logical sector number of at least one zone is wrongly recorded.
5. The method of claim 4, wherein the checking comprises confirming that the recording and reproducing apparatus does not normally analyze DMA information on the test disc when the recording and reproducing apparatus operates in the read or write mode.
6. The method of claim 3, wherein the test reference information is a DMA mirror file in which a start logical sector number for each zone is wrongly recorded.
7. The method of claim 1, further comprising recording the test reference information on a blank disc to generate the test disc.

8. The method of claim 7, wherein translating the DMA information recorded on the test disc when the test disc is loaded thereinto and attempting to perform a process in a read or write mode.

9. An apparatus for testing a defect management area (DMA) information analyzing function of a recording and reproducing apparatus which records information on or reproduces information from a disc with DMA information, the apparatus comprising:

a test disc with test reference information; and

a drive to be tested translating the DMA information recorded on the test disc when the test disc is loaded thereinto and attempting to perform a process in a read or write mode.

10. The apparatus of claim 9, wherein the test reference information is a DMA mirror file.

11. The apparatus of claim 9, wherein the test reference information is a DMA mirror file.

12. The apparatus of claim 11, wherein the test reference information is a DMA mirror file in which a start logical sector number of at least one zone is wrongly recorded.

13. The apparatus of claim 12, wherein the drive to be tested operates in the read or write mode when the DMA information on the test disc is not normally analyzed.

14. The apparatus of claim 11, wherein the test reference information is a DMA mirror file in which a start logical sector number for each zone is wrongly recorded.

15. The apparatus of claim 9, further comprising a reference drive recording the test reference information on a blank disc to generate the test disc.

16. The apparatus of claim 15, wherein the reference drive records the test reference information regardless of the physical condition of the blank disc.

17. The apparatus of claim 9, further comprising a verifier verifying a state of the drive to be tested by checking whether the drive to be tested operates in the read or write mode when a start logical sector number of at least one zone recorded on the test disc is incorrect.

18. The apparatus of claim 17, wherein the verifier informs a user that the drive to be tested is in an abnormal state upon determining that the drive to be tested operates in the read or write mode when the start logical sector number of the at least one zone is incorrect.

19. A method of verifying a defect management area (DMA) information analyzing function of a recording and reproducing apparatus which records information on or reproduces information from a disc with DMA information, the method comprising:

storing test information having an incorrect start logical sector number of at least one zone on a test disc; and

determining whether the recording and reproducing apparatus performs a process in a reading or writing mode on the test disc.

20. The method of claim 19, wherein start logical sectors of each zone are incorrect.

21. The method of claim 19, wherein the start logical sector number of the zones are recorded in a disc definition structure of a DMA on the test disc.

22. The method of claim 20, wherein the start logical sector number of the zones are recorded in a disc definition structure of a DMA on the test disc.

23. The method of claim 19, wherein the test information is a DMA mirror file having disc definition structure, primary defect list and secondary defect list information, wherein the incorrect start logical sector number of the at least one zone is stored in the disc definition structure.

24. The method of claim 19, wherein the incorrect start logical sector number, which is stored in the disc definition structure, does not match a corresponding actual start logical sector number in a user data area of the test disc.

25. The method of claim 20, wherein the incorrect start logical sector numbers, which are stored in the disc definition structure, do not match corresponding actual start logical sector numbers in a user data area of the test disc.

26. The method of claim 19, further comprising storing known physical defects on a blank disc to generate the test disc prior to storing the test information on the test disc.

27. The method of claim 26, wherein the test information is recorded on the test disc regardless of the known physical defects stored on the test disc.

28. An apparatus for verifying a defect management area (DMA) information analyzing function of a recording and reproducing apparatus which records information on or reproduces information from a disc with DMA information, the apparatus comprising:

a reference drive storing test information having an incorrect start logical sector number of at least one zone on a test disc;

wherein the test disc is usable to determine whether the recording and reproducing apparatus performs a process in a reading or writing mode on the test disc.

29. The apparatus of claim 28, further comprising:

a verifier determining whether the recording and reproducing apparatus performs the process in the reading or writing mode on the test disc.

30. The apparatus of claim 28, wherein whether the recording and reproducing apparatus performs the process in the reading or writing mode on the test disc is determinable by a user.

31. The apparatus of claim 28, wherein start logical sectors of each zone are incorrect.

32. The apparatus of claim 28, wherein the reference drive records the start logical sector number of the zones in a disc definition structure of a DMA on the test disc.

33. The apparatus of claim 31, wherein the reference drive records the start logical sector number of the zones in a disc definition structure of a DMA on the test disc.

34. The apparatus of claim 28, wherein the test information is a DMA mirror file having disc definition structure, primary defect list and secondary defect list information, wherein the incorrect start logical sector number of the at least one zone is stored in the disc definition structure.

35. The apparatus of claim 28, wherein the incorrect start logical sector number of the at least one zone, which is stored in the disc definition structure, does not match a corresponding actual start logical sector number in a user data area of the test disc.

36. The method of claim 31, wherein the incorrect start logical sector numbers, which are stored in the disc definition structure, do not match corresponding actual start logical sector numbers in a user data area of the test disc.

37. The apparatus of claim 28, wherein the test disc has known physical defects stored on a blank disc.

38. The apparatus of claim 37, wherein the reference drive records the test information on the test disc regardless of the known physical defects stored on the test disc.

39. A recording and reproducing apparatus verified according to the process of: storing test information having an incorrect start logical sector number of at least one zone on a test disc; and

determining whether the recording and reproducing apparatus performs a process in a reading or writing mode on the test disc.

40. The recording and reproducing apparatus of claim 39, wherein start logical sectors of each zone are incorrect.

41. A method of manufacturing a compliant recording and reproducing apparatus, comprising:

manufacturing an uncertified recording and reproducing apparatus that updates and generates defect management area (DMA) information; and

verifying whether the uncertified recording and reproducing apparatus is compliant with a standard, said verifying comprising:

storing test information having an incorrect start logical sector number of at least one zone on a test disc; and

determining whether the recording and reproducing apparatus performs a process in a reading or writing mode on the test disc.

42. The method of claim 41, wherein start logical sectors of each zone are incorrect.

43. A disc recording and reproducing apparatus for recording and reproducing information on an optical disc, comprising:

a light source to emit a light;

a focusing element to focus the light onto the optical disc to record and reproduce the information; and

a controller to control said light source, said controller being verified to update and generate defect management area (DMA) information by

storing test information having an incorrect start logical sector number of at least one zone on a test disc; and

determining whether the recording and reproducing apparatus performs a process in a reading or writing mode on the test disc.

44. The disc recording and reproducing apparatus of claim 43, wherein start logical sectors of each zone are incorrect.

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